## ALIGNMENT OF CRY3 SEQUENCES

### (Numbered according to Cry3BB)
### (alpha helices underlined, beta sheets marked with +++'s)

```
          1        10        20        30        40
CRY3C:          MNPNNRSEHDTIKATENNEVSNNHAQYPLADTP--TLEELNY
CRY3BB2:        MNPNNRSEHDTIKVTPNSELPTNHNQYPLADNPNSTLEELNY
CRY3BB:         MNPNNRSEHDTIKVTPNSELQTNHNQYPLADNPNSTLEELNY
CRY3BA:     MIRMGGRKMNPNNRSEYDTIKVTPNSELPTNHNQYPLADNPNSTLEELNY
CRY3A:      MIRKGGRKMNPNNRSEHDTIKTTENNEVPTNHVQYPLAETPNPTLEDLNY


          50        60        70        80        90
CRY3C:      KEFLRRTTDNNVEALDSSTTKDAIQKGISIIGDLLGVVGFPYGGALVSFY
CRY3BB2:    KEFLRMTEDSSTEVLDNSTVKDAVGTGISVVGQILGVVGVPFAGALTSFY
CRY3BB:     KEFLRMTEDSSTEVLDNSTVKDAVGTGISVVGQILGVVGVPFAGALTSFY
CRY3BA:     KEFLRMTADNSTEVLDSSTVKDAVGTGISVVGQILGVVGVPFAGALTSFY
CRY3A:      KEFLRMTADNNTEALDSSTTKDVIQKGISVVGDLLGVVGFPFGGALVSFY


          100       110       120       130       140
CRY3C:      TNLLNTIWPGE-DPLKAFMQQVEALIDQKIADYAKDKATAELQGLKNVFK
CRY3BB2:    QSFLDTIWPSDADPWKAFMAQVEVLIDKKIEEYAKSKALAELQGLQNNFE
CRY3BB:     QSFLNTIWPSDADPWKAFMAQVEVLIDKKIEEYAKSKALAELQGLQNNFE
CRY3BA:     QSFLNAIWPSDADPWKAFMAQVEVLIDKKIEEYAKSKALAELQGLQNNFE
CRY3A:      TNFLNTIWPSE-DPWKAFMEQVEALMDQKIADYAKNKALAELQGLQNNVE


          150       160       170       180       190
CRY3C:      DYVSALDSWDKTPLTLRDGRSQGRIRELFSQAESHFRRSMPSFAVSGYEV
CRY3BB2:    DYVNALNSWKKTPLSLRSKRSQDRIRELFSQAESHFRNSMPSFAVSKFEV
CRY3BB:     DYVNALNSWKKTPLSLRSKRSQDRIRELFSQAESHFRNSMPSFAVSKFEV
CRY3BA:     DYVNALDSWKKAPVNLRSRRSQDRIRELFSQAESHFRNSMPSFAVSKFEV
CRY3A:      DYVSALSSWQKNPVSSRNPHSQGRIRELFSQAESHFRNSMPSFAISGYEV
```

# FIG. 17A

```
            200       210       220       230       240
CRY3C:   LFLPTYAQAANTHLLLLKDAQIYGTDWGYSTDDLNEFHTKQKDLTIEYTN
CRY3BB2: LFLPTYAQAANTHLLLLKDAQVFGEEWGYSSEDVAEFYHRQLKLTQQYTD
CRY3BB:  LFLPTYAQAANTHLLLLKDAQVFGEEWGYSSEDVAEFYHRQLKLTQQYTD
CRY3BA:  LFLPTYAQAANTHLLLLKDAQVFGEEWGYSSEDIAEFYQRQLKLTQQYTD
CRY3A:   LFLTTYAQAANTHLFLLKDAQIYGEEWGYEKEDIAEFYKRQLKLTQEYTD

            250       260       270       280       290
CRY3C:   HCAKWYKAGLDKLRGSTYEEWVKFNRYRREMTLTVLDLITLFPLYDVRTY
CRY3BB2: HCVNWYNVGLNGLRGSTYDAWVKFNRFRREMTLTVLDLIVLFPFYDVRLY
CRY3BB:  HCVNWYNVGLNGLRGSTYDAWVKFNRFRREMTLTVLDLIVLFPFYDIRLY
CRY3BA:  HCVNWYNVGLNSLRGSTYDAWVKFNRFRREMTLTVLDLIVLFPFYDVRLY
CRY3A:   HCVKWYNVGLDKLRGSSYESWVNFNRYRREMTLTVLDLIALFPLYDVRLY

            300       310       320       330       340
CRY3C:   TKGVKTELTRDVLTDPIVAVNNMNGYGTTFSNIENYIRKPHLFDYLHAIQ
CRY3BB2: SKGVKTELTRDIFTDPIFSLNTLQEYGPTFLSIENSIRKPHLFDYLQGIE
CRY3BB:  SKGVKTELTRDIFTDPIFSLNTLQEYGPTFLSIENSIRKPHLFDYLQGIE
CRY3BA:  SKGVKTELTRDIFTDPIFTLNALQEYGPTFSSIENSIRKPHLFDYLRGIE
CRY3A:   PKEVKTELTRDVLTDPIVGVNNLRGYGTTFSNIENYIRKPHLFDYLHRIQ
         +++++++++++                              ++++

            350       360       370       380       390
CRY3C:   FHSRLQPGYFGTDSFNYWSGNYVSTRSSIGSDEIIRSPFYGNKSTLDVQN
CRY3BB2: FHTRLQPGYSGKDSFNYWSGNYVETRPSIGSSKTITSPFYGDKSTEPVQK
CRY3BB:  FHTRLQPGYFGKDSFNYWSGNYVETRPSIGSSKTITSPFYGDKSTEPVQK
CRY3BA:  FHTRLRPGYSGKDSFNYWSGNYVETRPSIGSNDTITSPFYGDKSIEPIQK
CRY3A:   FHTRFQPGYYGNDSFNYWSGNYVSTRPSIGSNDIITSPFYGNKSSEPVQN
         ++++++++   +++++ +++++++    +++++          +++

            400       410       420       430
CRY3C:   LEFNGEKVFRAVANGNLAVWPVGTGGTKIHSGVTKVQFSQYNDRKDEVRT
CRY3BB2: LSFDGQKVYRTIANTDVAAWPNG----KIYFGVTKVDFSQYDDQKNETST
CRY3BB:  LSFDGQKVYRTIANTDVAAWPNG----KVYLGVTKVDFSQYDDQKNETST
CRY3BA:  LSFDGQKVYRTIANTDIAAFPDG----KIYFGVTKVDFSQYDDQKNETST
CRY3A:   LEFNGEKVYRAVANTNLAVWPSA-----VYSGVTKVEFSQYNDQTDEAST
         +++        +++++++++++    ++++   ++++++++    ++++
```

FIG. 17B

```
              440       450       460       470       480
CRY3C:    QTYDSKRNVGGIV-FDSIDQLPPITTDESLEKAYSHQLNYVRCFLLQGGR
CRY3BB2:  QTYDSKRNNGHVGAQDSIDQLPPETTDEPLEKAYSHQLNYAECFLMQDRR
CRY3BB:   QTYDSKRNNGHVSAQDSIDQLPPETTDEPLEKAYSHQLNYAECFLMQDRR
CRY3BA:   QTYDSKRYNGYLGAQDSIDQLPPETTDEPLEKAYSHQLNYAECFLMQDRR
CRY3A:    QTYDSKRNVGAVS-WDSIDQLPPETTDEPLEKGYSHQLNYVMCFLMQGSR
          ++++          +++++                    +++++++


              490       500       510       520       530
CRY3C:    GIIPVFTWTHKSVDFYNTLDSEKITQIPFVKAFILVNSTSVVAGPGFTGG
CRY3BB2:  GTIPFFTWTHRSVDFFNTIDAEKITQLPVVKAYALSSGASIIEGPGFTGG
CRY3BB:   GTIPFFTWTHRSVDFFNTIDAEKITQLPVVKAYALSSGASIIEGPGFTGG
CRY3BA:   GTIPFFTWTHRSVDFFNTIDAEKITQLPVVKAYALSSGASIIEGPGFTGG
CRY3A:    GTIPVLTWTHKSVDFFNMIDSKKITQLPLVKAYKLQSGASVVAGPRFTGG
           +++++++       +++++  ++++     +++++++


              540       550       560       570       580
CRY3C:    DII-KCT-NGSGLTLYVTPAPDLTYSKTYKIRIRYASTSQVRFGIDLGSY
CRY3BB2:  NLLFLKESSNSIAKFKVTL-NSAALLQRYRVRIRYASTTNLRLFVQNSNN
CRY3BB:   NLLFLKESSNSIAKFKVTL-NSAALLQRYRVRIRYASTTNLRLFVQNSNN
CRY3BA:   NLLFLKESSNSIAKFKVTL-NSAALLQRYRVRIRYASTTNLRLFVQNSNN
CRY3A:    DII-QCTENGSAATIYVTPD--VSYSQKYRARIHYASTSQITFTLSLDGA
          ++++++       ++++++++       +++++++++++++    +++++++


              590       600       610       620       630
CRY3C:    THSISYFDKTMDKGNTLTYNSFNLSSVSRPIEISG-GNKIGVSVGGIGSG
CRY3BB2:  DFIVIYINKTMNIDDDLTYQTFDLATTNSNMGFSGDTNELIIGAESFVSN
CRY3BB:   DFLVIYINKTMNKDDDLTYQTFDLATTNSNMGFSGDKNELIIGAESFVSN
CRY3BA:   DFLVIYINKTMNIDGDLTYQTFDFATSNSNMGFSGDTNDFIIGAESFVSN
CRY3A:    PFNQYYFDKTINKGDTLTYNSFNLASFSTPFELSG--NNLQIGVTGLSAG
           +++++++          +++++++ ++++       +++++++++++


              640       650
CRY3C:    DEVYIDKIEFIPMD     (SEQ ID NO:109)
CRY3BB2:  EKIYIDKIEFIPVQL    (SEQ ID NO:110)
CRY3BB:   EKIYIDKIEFIPVQL    (SEQ ID NO:111)
CRY3BA:   EKIYIDKIEFIPVQ     (SEQ ID NO:112)
CRY3A:    DKVYIDKIEFIPVN     (SEQ ID NO:113)
          +++++++++++++++
```

FIG. 17C